

as to the loss or inaccessibility of the original patent must be received before this reissue application can be allowed, and request that this requirement be held in abeyance until all of the claims have been allowed.

Claim 65 has been amended to add the word "which" after "in," as suggested by the examiner.

Claims 67-70 have been rejected under 35 U.S.C. § 112 (second paragraph). Claim 67 has been amended to eliminate the word "the" before "coupling" to overcome the antecedent basis objection raised by the examiner. In claim 68, antecedent basis for "the bore" is already provided by the earlier recitation of "a threaded bore" in line 2 (as originally presented in the reissue application). Also, "the body" in claim 68 has been changed to "a body" to overcome the rejection. Claim 69 has been amended to depend from claim 68 instead of claim 67, and therefore, now has antecedent basis for "the body." Withdrawal of the § 112 rejections is requested.

Claims 55-61 have been rejected under 35 U.S.C. § 251 as improperly recapturing broadened claimed subject matter surrendered in the application. The applicants however believe that the presently pending claims do not violate the recapture rule.

The Federal Circuit has set forth that the recapture rule "prevents a patentee from regaining through reissue the subject matter that he surrendered in an effort to obtain allowance of the original claims." *In re Clement*, 45 U.S.P.Q.2d 1161, 1164 (Federal Circuit 1997). In the present case, the two limitations noted by the examiner (i.e., the rigid lock and the lock engaging the rear bearing face) were

provided solely in an effort to enhance the clarity of the claim and were not made to obtain allowance of the claims.

“To determine whether an applicant surrendered particular subject matter, we look to the prosecution history for arguments and changes to the claims made in an effort to overcome a prior art rejection.” *Id.* The originally filed claim 1 recited in pertinent part: “a lock member having a rigid body received into said opening.” Accordingly, the claim as filed already recited that the lock was “rigid.” This was not a feature that was added by the amendment. In the amended claim, the limitation was simply rewritten as: “a rigid lock received into said opening.” Clearly, then, the amendment made during the original prosecution merely rewrote this portion of the claim and did not add any new limitations.

Further, the applicants did not in any way argue in the prosecution history that the claims were allowable over the prior art because the lock was rigid. Indeed, the applicants expressly noted that the prior art relied upon by the examiner (i.e., Jones ‘214) included a rigid lock. In discussing Jones ‘214, Applicants stated that it included “a rigid lock member . . . placed into an opening formed in the leg” of the wear member.¹ The recitation of a rigid lock was simply not relevant to the allowance of the original claims. Since the limitation was not added or argued to overcome the prior art, there can be no recapture of surrendered subject matter in violation of § 251.

Similarly, the recitation that the first face “engage” the rear bearing face of

¹ Page 12, lines 14-16 of the response filed November 27, 1996.

the boss was added in an effort to provide the claim with improved clarity. As with the rigid lock, the applicant expressly acknowledged that the lock in the Jones '214 patent (i.e., the primary reference) engaged the rear bearing face of the boss:

“A rigid lock is placed into an opening formed in the leg of the shroud so as to engage the rear surface of the boss and prevent removal of the shroud.”²

The applicant did not at any time argue that the claims were allowable because the lock engaged the rear bearing face of the boss. Hence, there is no violation of the recapture rule by eliminating the recitation that the lock specifically engage the rear face of the boss.

Further, the applicants have narrowed the recitation of the lock in claims 55-61 by reciting that the adjustment assembly selectively applies forces to the wear member and the boss that tend to move the wear member so as to tighten the mounting of the wear member on the boss (see the ends of independent claims 55 and 59). This is a material limitation that is not recited in the originally filed or allowed claims. Accordingly, the applicants submit that claims 55-61 are properly narrowed and do not seek to recapture subject matter surrendered during the original prosecution.

Independent claim 67 has been rejected as being anticipated by U.S. Patent No. 4,433,496 to Jones et al. To anticipate a claim, the reference must include each and every element recited in the claim. In this case, the lock in Jones '496 fails to include a rear bearing face. The examiner contends that the area of the C-

² *Id.* (Emphasis added).

clamp that opposes areas 20-21 is the bearing face. However, this surface of the C-clamp does not "bear" on any other surface.

The lock 12 in Jones '496 includes a C-clamp 26 and a wedge 28 to secure the adapter 15 to the lip 10 of an excavator. As screw 33 is tightened, the wedge 28 pushes against wall 36 of the bucket lip. This action forces the C-clamp rearward so that the legs of the C-clamp press inward on the faces 24, 25 of the adapter. As a result, the C-clamp squeezes the adapter legs 16, 16' against the lip to hold the adapter in place during use. As seen in Figure 1, a gap is maintained between the middle portion of the C-clamp and the walls of the adapter and lip so that the wedge can be assured of adequately tightening the lock to hold the adapter. Since this middle portion of the C-clamp does not contact or bear against another surface, it does not define a "bearing surface" as recited in the claim.

Further, new claim 73 additionally recites that the lock includes a first part with a bearing face and an opening, and a second part with a bearing face that is movably received in the first part. While Jones '496 includes two parts 26, 28, neither includes an opening that movably receives the other. In contrast, the parts 26, 28 in Jones '496 have walls that slide against each other in a typical wedge-type manner. In view of the forces being applied by the Jones '496 lock, there would have been no reason for one of ordinary skill in the art to have provided one of the parts with an opening to movably receive the other part.

Finally, claims 55-61 have been rejected under 35 U.S.C. § 103 as being obvious over Jones '214 in view of Jones '496. Applicants traverse this rejection.

The present invention is directed to a wear assembly that mounts to the

digging edge of an excavator. As can be appreciated, these wear members must be securely and stably mounted to prevent their loss. Also, since digging is a very abrasive operation, the wear members must also be able to be easily removed and replaced. The wear member in the invention is mechanically attached to the digging edge, as opposed to welding, in order to facilitate easy removal and replacement in the field. Moreover, the wear member is securely attached so as to withstand the large and varied forces typically encountered during digging. The attachment further requires no special holes to be formed in the digging edge, and thus avoids weakening of the excavator lip.

In particular, the invention includes (1) a boss with a T-shaped coupling structure that is attached to the lip of an excavator, (2) a wear member with a mating T-shaped structure that is slidably mounted on the boss, and (3) an adjustable lock that eliminates looseness in the connection without requiring any holes in the lip. The lock includes an adjustment assembly to tighten the mounting of the wear member onto the boss.

Neither Jones '214 nor Jones '496 disclose a lock that applies forces to a wear member so as to move the wear member into a tighter arrangement. In Jones '214, the lock is a solid block-like member that does not adjust or eliminate looseness in the connection. In Jones '496, the lock squeezes the adapter legs but does not apply a force to move the wear member into a tighter arrangement.

Jones '496 discloses an adapter that is secured to the lip of an excavator via a Whisler style mount. The wear member is not held onto the lip by a boss as in Jones '214. Rather, in this arrangement, unlike Jones '214, the lock is received into

a hole that extends entirely through the lip and both legs of the adapter. Further, as discussed above, the lock relies upon a wedge and a C-clamp to squeeze the legs of the adapter against the lip. The lock does not move the adapter along the lip; only the lock itself moves when the screw is actuated.


In view of the substantial differences in their construction, operation, applied forces and advantages, Applicants submit that it would not have been obvious to somehow modify the lock in Jones '214 to include a wedge type adjustment as used in Jones '496. Further, there is no teaching in the prior art that would suggest using a lock that holds a wear member onto a T-shaped boss and adjusts to move the wear member into a tighter position on the boss.

In view of the foregoing, the applicants believe that claims 55-61, 67-70 and 73 are allowable along with claims 1-54, 62-66, and 71-72. A notice to this effect is earnestly solicited.

Respectfully submitted,

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APPENDIX 1

Serial No.: 09/368,503
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55. (Amended) A wear assembly for attachment to a digging edge of an excavator, the digging edge having an inside face and an outside face, said wear assembly comprising:

a boss having a mounting surface adapted to be fixed to the digging edge, a T-shaped coupling structure, and a bearing face extending transverse to said mounting surface;

a wear member having at least one rearwardly extending leg and a forwardly projecting working end, said leg having a T-shaped coupling structure releasable coupled to said T-shaped structure of said boss, and an opening extending therethrough; and

a lock received into said opening to hold said wear member to said boss, said lock having a first face adapted to oppose said bearing face of said boss, [and] a second face adapted to oppose a wall of said opening, and [whereby said lock further includes] an adjustment assembly selectively movable to vary the relative positions of said first and second faces to thereby apply forces to the wear member and the boss that tend to move the wear member so as to tighten the mounting of the wear member on the boss.

59. (Amended) A wear assembly for attachment to a digging edge of an excavator, the digging edge having an inside face and an outside face, said wear assembly comprising:

a boss having a mounting surface adapted to be fixed to the digging edge, a T-shaped coupling structure, and a bearing face extending laterally to said mounting surface;

a wear member having at least one rearwardly extending leg and a forwardly projecting working end, said leg having a T-shaped coupling structure releasably coupled to said T-shaped structure of said boss, and an opening extending therethrough; and

a lock received into said opening to hold said wear member to said boss, said lock having a first part with a first face adapted to oppose said bearing face of said boss, and a second part with a second face adapted to oppose a wall of said opening, said first part being threadedly connected to said second part for adjustment of said first face relative to said second face to thereby apply forces to the wear member and the boss that tend to move the wear member so as to tighten the mounting of the wear member on the boss.

65. (Amended) A mount in accordance with claim 63 in which said at least one surface of the front structure faces forwardly to abut an inner surface of the wear member.

67. (Amended) A lock adapted to be received into an opening in a wear member for securing the wear member to a boss fixed to a digging edge of an excavator, said lock comprising opposite front and rear bearing faces wherein the front face is adapted to oppose the boss and the rear face is adapted to oppose the wear member to maintain [the] coupling of the wear member to the boss, an adjustment assembly for selectively varying the relative positions of the front and rear bearing faces, and a projection to cooperate with a keeper structure to hold the lock in the opening in the wear member.

68. (Amended) A lock [in accordance with claim 67 in which] adapted to be received into an opening in a wear member for securing the wear member to a boss fixed to a digging edge of an excavator, said lock comprising opposite front and rear bearing faces wherein the front face is adapted to oppose the boss and the rear face is adapted to oppose the wear member to maintain coupling of the wear member to the boss, an adjustment assembly for selectively varying the relative positions of the front and rear bearing faces, and a projection to cooperate with a keeper structure to hold the lock in the opening in the wear member, wherein the adjustment assembly includes a threaded bore extending through a body and a threaded plug operatively received into the bore, and the plug includes the front bearing face.

69. (Amended) A lock in accordance with claim 68 [67] in which the body includes an arcuate depression in a side thereof to form a pivot support.

70. (Amended) A lock [in accordance with claim 67 in which] adapted to be received into an opening in a wear member for securing the wear member to a boss fixed to a digging edge of an excavator, said lock comprising opposite front and rear bearing faces wherein the front face is adapted to oppose the boss and the rear face is adapted to oppose the wear member to maintain coupling of the wear member to the boss, an adjustment assembly for selectively varying the relative positions of the front and rear bearing faces, and a projection to cooperate with a keeper structure to hold the lock in the opening in the wear member, wherein the projection includes a rigid tang and an elastomeric member resiliently supporting the tang.